03040205-04

(Pocotaligo River)

General Description

Watershed 03040205-04 (formerly 03040205-090 plus the Pocotaligo River headwaters) is located in Sumter and Clarendon Counties and consists primarily of the headwaters of the ***Pocotaligo River*** and its tributaries. The watershed occupies 171,667 acres of the Upper Coastal Plain region of South Carolina. Land use/land cover in the watershed includes: 43.3% agricultural land, 25.4% forested wetland, 23.2% forested land, 6.0% urban land, 1.8% scrub/shrub land, 0.2% nonforested wetland, and 0.1% water.

Green Swamp and Cane Savannah Creek join to form the headwaters of the Pocotaligo River near the City of Sumter, which then accepts drainage from Pocalla Creek (DesChamps Pond), Turkey Creek, Briar Branch, Boots Branch, Sammy Swamp (Boggy Swamp, Broadway Branch, Hungary Hall Branch, DesChamps Branch, Home Branch, Guckolds Branch), and Big Branch. Further downstream, another Big Branch enters the river followed by Bell Branch and Ox Swamp (Hog Branch, Lemon Branch, Fellowship Branch, Davis Branch, Loss Branch) near the City of Manning. Bear Creek enters the river next, followed by Deep Creek (Elwood Bay, Hog Bay, White Pond, Joes Branch), Juneburn Branch (Lightwood Knot Branch), Peddlers Branch, and Lakewood Creek (Lakewood Pond). The Pocotaligo River Watershed drains into the Black River. The western portion of the watershed is within the Manchester State Forest. There are a total of 313.1 stream miles and 336.6 acres of lake waters in this watershed. The Pocotaligo River, Pocalla Creek, and Turkey Creek are classified FW* (Dissolved oxygen not less than 4.0 mg/l and pH between 5.0 and 8.0) and the remaining streams in the watershed are classified FW.

Surface Water Quality

Station #	Type	Class	Description
PD-091	P/INT	FW*	POCOTALIGO RIVER AT US 15, 3.5 MI S OF SUMTER
PD-098	S/W	FW*	TURKEY CREEK AT LIBERTY ST IN SUMTER BY SANTEE PRINT WORKS
PD-040	W	FW*	TURKEY CREEK AT US 521
PD-202	P/W	FW*	POCOTALIGO RIVER AT S-43-32, 9 MI SE OF SUMTER
PD-627	BIO	FW	BIG BRANCH AT SC 261
PD-115	S/W	FW*	POCOTALIGO RIVER AT THIRD BRIDGE N OF MANNING ON US 301
PD-693	BIO	FW	DEEP CREEK AT S-14-25, 1.2 MI NE OF BLOOMSVILLE
RS-03347	RS03	FW	DEEP CREEK AT S-14-25, 1.2 MI NE OF BLOOMSVILLE
PD-043	P/INT	FW*	POCOTALIGO RIVER AT S-14-50, 9.5 MI NE OF MANNING

Pocotaligo River - There are four SCDHEC monitoring stations along the Pocotaligo River. This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. At the furthest upstream site ***(PD-091)***, aquatic life uses are not supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. There is a significant decreasing trend in pH. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. DDD (a metabolite of DDT) was detected in the 2003 sediment sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are fully supported at this site, and a significant decreasing trend in fecal coliform bacteria concentration suggests

improving conditions for this parameter. At the next site downstream ***(PD-202),*** aquatic life and recreational uses are fully supported; however, there are significant increasing trends in total nitrogen concentration and total suspended solids. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. There are significant increasing trends in pH. A significant increasing trend in dissolved oxygen concentration suggests improving conditions for this parameter. DDT, DDD, DDE, and dibutyl phthalate were detected in the 1999 sediment sample, and benzo(a)anthracene, chrysene, fluoranthene, phenanthrene, pyrene, DDT, DDD, and DDE were detected in the 2000 sample.

Further downstream ***(PD-115),*** aquatic life and recreational uses are fully supported; however, there are significant increasing trends in turbidity and fecal coliform bacteria concentration. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. There are significant increasing trends in pH. At the furthest downstream site ***(PD-043)***, aquatic life and recreational uses are fully supported; however, there are significant increasing trends in total nitrogen concentration and fecal coliform bacteria concentration. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. There is a significant increasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. DDT, DDD, and DDE were detected in the 1999 sediment sample.

Turkey Creek – There are two SCDHEC monitoring stations along Turkey Creek. This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. At the upstream site ***(PD-098)***, aquatic life uses are fully supported and a significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are not supported at this site due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter. At the downstream site ***(PD-040)***, aquatic life uses are fully supported. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Big Branch (PD-627) – Aquatic life uses are partially supported based on macroinvertebrate community data.

Deep Creek **(PD-693/RS-03347)** Aquatic life uses are not supported based on macroinvertebrate community data. Recreational uses are not supported due to fecal coliform bacteria excursions. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentration conditions. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

*A fish consumption advisory has been issued by the Department for mercury and includes the **Pocotaligo River** within this watershed (see advisory p.72).*

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-105	GB	TERTIARY SANDS	PINKNEY ESTATES

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)*	*NPDES#* *TYPE* *COMMENT*
POCOTALIGO RIVER CWS/POCALLA VILLAGE BELK SD PIPE #: 001 FLOW: 0.104	SC0030724 MINOR DOMESTIC
POCOTALIGO RIVER CITY OF SUMTER/POCOTALIGO RIVER PLANT PIPE #: 001 FLOW: 15.0	SC0027707 MAJOR DOMESTIC
POCOTALIGO RIVER CITY OF MANNING WWTP PIPE #: 001 FLOW: 2.50	SC0020419 MAJOR DOMESTIC
POCOTALIGO RIVER TRIBUTARY MCCUTCHEN FARMS/CALLOWAY PIT PIPE #: 001 FLOW: M/R	SCG730552 MINOR INDUSTRIAL
POCOTALIGO RIVER TRIBUTARY L. DEAN WEAVER CONSTR./BLACKWOOD PIT PIPE #: 001 FLOW: M/R	SCG730683 MINOR INDUSTRIAL
BIG BRANCH L. DEAN WEAVER CONSTR./WL COKER PIT PIPE #: 001 FLOW: M/R	SCG730685 MINOR INDUSTRIAL
POCALLA CREEK PILGRIMS PRIDE CORP./POULTRY PROC. PLT PIPE #: 001 FLOW: 1.04	SC0000795 MAJOR INDUSTRIAL
POCALLA CREEK COOPER INDUSTRIES, INC. PIPE #: 001 FLOW: 0.400	SCG250157 MINOR INDUSTRIAL
POCALLA CREEK KAYDON CORPORATION PIPE #: 001 FLOW: M/R	SCG250132 MINOR INDUSTRIAL
TURKEY CREEK GIANT RESOURCE RECOVERY/SUMTER PIPE #: 001 FLOW: M/R	SCG250058 MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
GA PACIFIC CORP. C/C LANDFILL CONSTRUCTION	143304-1201, 143304-1601 INACTIVE
BOB SPRINGERS LANDFILL INDUSTRIAL	IWP-183 INACTIVE
GIANT RESOURCES RECOVERY INDUSTRIAL	432675-2001 ACTIVE
SOUTHEASTERN CHEMICAL & SOLVENT CO. INDUSTRIAL	432675-7301, 432675-7101 ACTIVE
CAMPBELL SOUP CO., INC. INDUSTRIAL	---------- INACTIVE
EAST COAST INDUSTRIAL SERVICES, INC. INDUSTRIAL	142348-5201 ACTIVE
CITY OF MANNING DUMP MUNICIPAL	--------- CLOSED
TOWN OF PINEWOOD DUMP MUNICIPAL	--------- CLOSED
CLARENDON COUNTY LANDFILL MUNICIPAL	141001-1103, 141001-1101 CLOSED
CLARENDON COUNTY C&D LANDFILL CONSTRUCTION	141001-1203 ACTIVE
CLARENDON COUNTY SW TRANSFER STATION CONSTRUCTION	141001-6001 ACTIVE

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
MCCUTCHEN FARMS CALLOWAY PIT, MINE #2	0831-27 SAND

Growth Potential

There is a moderate to high potential for growth in this watershed, which includes the City of Manning and the Towns of Paxville and Pinewood. I-95 crosses the watershed near Manning, and other major roads running through Manning include U.S. Hwys. 15, 521, 301, and S.C. Hwys. 261 and 260. Besides the rail line connecting the Cities of Manning and Sumter, the Clarendon County Industrial Park should encourage future industrial growth. The remainder of the watershed is rural with agricultural and timberland uses. There are plans for water to service the Towns of Pinewood and Paxville and the S.C. Hwy. 261 and U.S. Hwy. 15 corridors, which should encourage all forms of growth.

Watershed Restoration and Protection

Total Maximum Daily Loads (TMDLs)

A TMDL was developed by SCDHEC and approved by EPA for **Turkey Creek** water quality monitoring site ***PD-040*** to determine the maximum amount of fecal coliform bacteria it can receive and still meet water quality standards. This portion of the watershed contains 469 OSWD systems with an average density of 11 per 100 acres, which is considered excessive and a potentially significant source of fecal coliform loading. Because of the SSOs and high OSWD system density, it is anticipated that human sources play a major role in fecal coliform loadings in this watershed. The TMDL states that a 75% reduction in fecal coliform loading is necessary for the stream to meet the water quality standard.

A TMDL was also developed by SCDHEC and approved by EPA for **Turkey Creek** water quality monitoring site **PD-098** to determine the maximum amount of fecal coliform bacteria it can receive and still meet water quality standards. This portion of the watershed contains 59 OSWD systems with an average density of three per 100 acres, which is much lower than PD-040 and is regarded as relatively minor. Because of the possibility of SSOs and moderate OSWD system density, it is anticipated that human sources may play a role in fecal coliform loadings in this watershed. Other nonpoint sources of fecal coliform include wildlife and pets. The TMDL states that a 94% reduction in fecal coliform loading is necessary for the stream to meet the water quality standard.